

## X-RAY SPECTROMETER

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### Abstract

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**PROBLEM TO BE SOLVED:** To provide an X-ray spectrometer capable of increasing the size of an analysis sample and enlarging the range of movement of a sample without the need for a guide.

**SOLUTION:** This X-ray spectrometer is a wavelength dispersive-type X-ray spectrometer to disperse X-rays through the use of diffraction by a curved-type dispersing crystal and is provided with both a distance control mechanism to make the distance Q between the dispersing crystal and an X-ray detector equal to  $2R\sin\theta$  when the radius of a Rowland circle 1 is R and the angle of incidence of X-rays onto the dispersing crystal is  $\theta$  and an angle control mechanism interlocked with the rectilinear movements of the dispersing crystal along the axis E of movement of the crystal to control the angle of the axis of a crystal surface and the axis G of movement of the X-ray detector Q and to make the angle of incidence of X-rays onto the dispersing crystal and the angle of emergence toward the X-ray detector Q equal to  $\theta$ .

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